



National Transportation Safety Board
Washington, DC 20594

Highway Accident Brief

Fatal Pedestrian Collision with Sport Utility Vehicle
Alexandria, Virginia, August 30, 2016

Accident Number:	HWY16SH025
Accident Type:	Fatal pedestrian collision with sport utility vehicle
Location:	Richmond Highway (US Route 1) at Gregory Drive, near Alexandria, Virginia
Date and Time:	August 30, 2016, about 6:17 a.m. eastern daylight time
Vehicle:	2008 GMC Yukon
Driver:	69-year-old female
Pedestrian:	56-year-old male
Fatalities:	1

Crash Description

About 6:17 a.m. on Tuesday, August 30, 2016, a 2008 GMC Yukon sport utility vehicle (SUV), driven by a 69-year-old female, was traveling south in the left southwestbound lane of Richmond Highway (US Route 1) about 9 miles southwest of Alexandria, Virginia.¹ A 56-year-old male pedestrian had walked into the southwestbound lanes from the northwest side of the highway. The pedestrian continued to walk south in the left lane for a short distance until the right front of the SUV struck him, causing fatal injuries. The driver told responding police officers that she did not see the pedestrian until it was too late. Investigators found no evidence of preimpact braking and no postimpact skid marks. The area of impact was 100 feet southwest of the intersection of Richmond Highway and Gregory Drive (figure 1).

After the collision, the SUV driver stopped in the left southwestbound lane of travel, about 11 feet from the pedestrian. The driver stayed on the scene until the police arrived. The pedestrian came to rest on the roadway in the right-turn lane of southwestbound Richmond Highway near the curb, about 112 feet from the point of impact. The Fairfax County Police Department documented a debris field near the impact point between the pedestrian and the SUV.

¹ Alexandria is an independent city, separate from neighboring Fairfax County.

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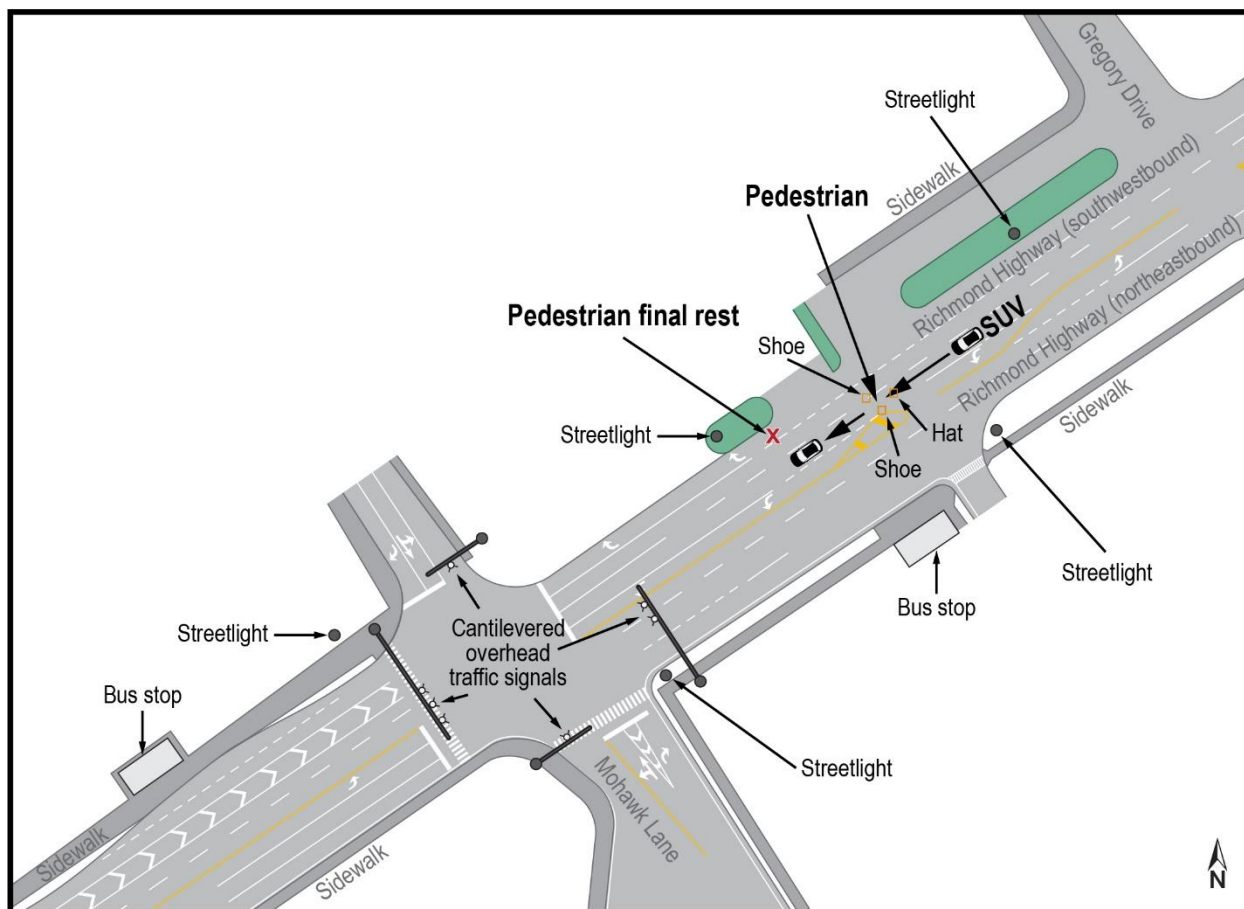


Figure 1. Diagram showing path of SUV on Richmond Highway, point of impact, pedestrian final rest, roadway debris, and surrounding features such as streetlights and bus stops.

The temperature at the time of the crash was 75°F, with winds from the north at 10.4 mph and scattered clouds. Sunrise was at 6:35 a.m. The crash occurred during the twilight between 6:08 and 6:37 a.m., and at the time of the event, the sun would have been 4.44° below the horizon. The moon, a waning crescent, had risen at 4:45 a.m. and was 3 percent illuminated.²

Crash Location

Richmond Highway is classified as an urban principal arterial roadway. It generally runs north and south, but in the area of the crash runs northeast and southwest. The opposing lanes are divided by solid yellow lines. Southwest of the crash site, the roadway consists of two through lanes and intermittent southwestbound right- and left-turn lanes. Northeastbound, the roadway has two through lanes, with intermittent left-turn lanes. The through lanes are about 11 feet wide, separated by 4-inch-wide broken white lines. The left-turn lane is also about 11 feet wide. The

² Weather data from <https://www.wunderground.com/history/>.

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right-turn-only lane is about 15 feet wide. The speed limit in this area of Richmond Highway is 45 mph. Figure 2 is an aerial view of the area near the crash site.



Figure 2. Aerial view of crash location showing nearest intersection to crash site (Gregory Drive), nearest pedestrian crosswalks (at Russell Road and Mohawk Lane), surrounding buildings and parking lots, and nearby residential neighborhood. (Base photo by DigitalGlobe)

The block on the northwest side of Richmond Highway where the crash occurred has no sidewalks next to the highway. Near the crash site, a raised grassy strip planted with trees separates Richmond Highway from a short service road paralleling the highway (refer to figure 1). People have worn a foot trail in the grassy strip. Vehicles are allowed to parallel-park on the service road, which contains entrances to parking lots for local businesses. A sidewalk on the northwest side of the service road runs the length of the road and dead-ends where the road reconnects with Richmond Highway.

Across from the crash site is a bus stop and shelter, with sidewalks on either side. There is also a bus stop farther south of where the crash occurred, on the northwest side of the highway, past Mohawk Lane. The area is lit by streetlights on both sides of the roadway, with ambient lighting coming from multiple businesses on the northwest side.

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The closest crosswalk on Richmond Highway is 350 feet southwest of the area of impact, at the intersection of Richmond Highway and Mohawk Lane. The closest crosswalk to the northeast, at the intersection of Richmond Highway and Russell Road, is 850 feet from the crash site. Pedestrian walk phases are incorporated into the timing sequence of the traffic lights at both intersections.

Pedestrian

The pedestrian lived in the area. At the time of the collision, he wore a light gray T-shirt and blue jeans. Family members were not available for interviews.

The pedestrian's body was examined by the Virginia Office of the Chief Medical Examiner, which provided a copy of its autopsy and toxicological report. The pedestrian's height was recorded as 5 feet 6 inches and his weight as 129 pounds.³ The report identified abrasions to the knees, right thigh, and midsection, consistent with sliding on the pavement. Contusions and lacerations were noted on the right side of the head and on the left arm. A midfemur fracture to the left leg and a high cervical spine fracture were also noted. The autopsy listed the cause of death as acute blunt force trauma to the neck and chest.

Toxicology results showed that the pedestrian had a blood alcohol concentration of 0.16. Results were negative for other drugs. Research has shown that even low levels of alcohol can affect cognitive performance.⁴ At blood alcohol levels above 0.10, individuals suffer impaired motor coordination, vision, hearing, and balance. Their reaction times are slower, and judgment and perception are impaired.

Driver

The SUV driver was on her way to work. She held a class D (noncommercial) driver's license issued by the District of Columbia, although she had lived in Maryland since 2007. She had possessed a driver's license for 41 years and had no restrictions on her driving privilege. Investigators at the scene of the collision found no signs of impairment, and no tests were conducted. The police report indicates no cell phone use or other types of driver distractions.

The driver was not injured. She was in emotional distress and was taken to a hospital, where she was treated for her distress and released. She declined to be interviewed by National Transportation Safety Board (NTSB) investigators.

Vehicle

The vehicle involved in the crash, a 2008 GMC Yukon SUV, was examined at the scene by law enforcement officers and NTSB investigators. They observed contact damage to the right

³ Pedestrian characteristics, such as height and weight, were documented to aid crash reconstruction and evaluate pedestrian injuries.

⁴ Linda Dultz and Spiros Frangos, "The Impact of Alcohol in Pedestrian Trauma," *Journal of Injury, Infection, Trauma and Critical Care* (2012): 1252–1257.

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front of the vehicle (figure 3). The headlight lens and most of the assembly on that side were missing. The headlight bulb was still attached to part of the reflector and was hanging from the connector wire. The right side of the hood showed contact damage from the top of the headlight cavity to the base of the windshield. The right front fender also showed contact damage near the headlight. The right front headlight bulb, in the area of impact, displayed hot shock on the filament, indicating that the headlight was illuminated at the time of impact. The vehicle's headlight controls were in the automatic position. The SUV's front air bags did not deploy in the crash.

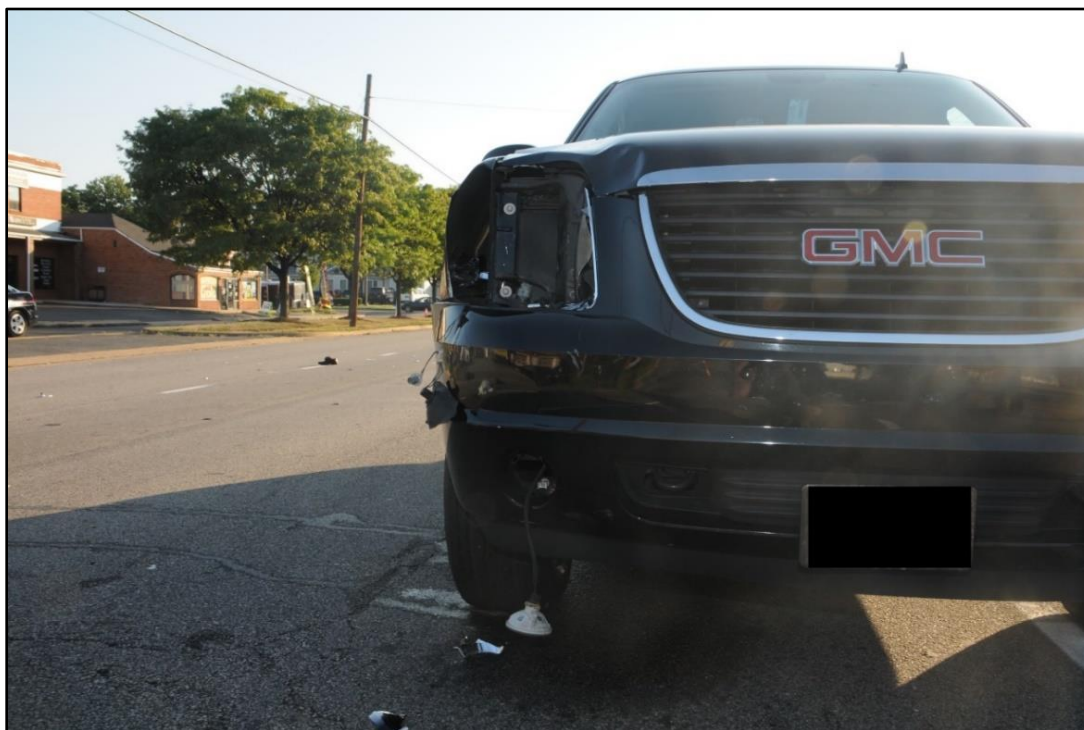


Figure 3. Photograph of crash SUV showing damage on right side to headlight, hood, and fender.

Applicable Traffic Laws

Virginia regulates the movement of pedestrians walking on or along public roadways. According to the Code of Virginia, section 46.2-923:

When crossing highways, pedestrians shall not carelessly or maliciously interfere with the orderly passage of vehicles. They shall cross, wherever possible, only at intersections or marked crosswalks. Where intersections contain no marked crosswalks, pedestrians shall not be guilty of negligence as a matter of law for crossing at any such intersection or between intersections when crossing by the most direct route.

Drivers are required by section 46.2-924 of the Code of Virginia to yield the right-of-way to pedestrians crossing a highway in a clearly marked crosswalk (46.2-924[A.1]). The code also stipulates that “no pedestrian shall enter or cross an intersection in disregard of approaching traffic” (46.2-924[B]).

Probable Cause

The National Transportation Safety Board determines that the probable cause of the crash outside Alexandria, Virginia, was the pedestrian's decision to walk in the travel lane of a multilane arterial roadway, in low-light conditions, outside the crosswalk. Contributing to his poor decision-making was impairment from alcohol intoxication.

BY THE NATIONAL TRANSPORTATION SAFETY BOARD

ROBERT L. SUMWALT, III
Chairman

EARL F. WEENER
Member

T. BELLA DINH-ZARR
Member

Adopted: July 31, 2018

Board Member Statement

Member Earl F. Weener filed the following concurring statement on July 16, 2018. Chairman Robert L. Sumwalt, III, and Member T. Bella Dinh-Zarr joined in the statement.

I agree with the probable cause determination in this report. Consuming a significant quantity of an alcoholic beverage before attempting to navigate a busy roadway outside a crosswalk is an inherently dangerous endeavor. That said, I think it worth emphasizing an issue with the road design of this area.

As a resident of Fairfax County, I am particularly familiar with the road involved in this fatality. Many who live in this area use the only form of public transportation available to them, buses. A person who is headed towards the bus shelter near Mohawk Lane while traveling southwest along the access road's sidewalk across the street would have one of three choices to make. One, he could turn around and retrace his steps to find a crosswalk behind him. Two, he could proceed straight, after the sidewalk ended, through parked cars and across parking lots and/or driveways of multiple businesses until reaching the crosswalk at Mohawk to get across Route 1 before turning back towards the bus shelter. Or, three, when faced with the sidewalk's end, he could simply attempt to cross the street on a diagonal trajectory toward the bus shelter. While this is the most dangerous option, this is also the quickest, and perhaps, most tempting way to cross the street. If a sidewalk or other clear path leading all the way to an intersection which is clearly marked and controlled by a light were available, however, pedestrians might be more inclined to cross where it is safer to do so.

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For more details about this accident, visit the [NTSB public docket](#) and search for NTSB accident ID HWY16SH025. The accident dockets include such information as police reports, photographs, driver and witness statements, data on previous crashes, highway engineering reports, and timing of traffic signals.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties . . . and are not conducted for the purpose of determining the rights or liabilities of any person.” 49 *Code of Federal Regulations*, Section 831.4. Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report. 49 *United States Code*, Section 1154(b).
